

Indiana Traffic Safety Facts 2001

Young Drivers

<http://www.in.gov/cji>

In 2001, there were approximately 463,500 young licensed drivers between 16–20 years old in Indiana. Of these drivers, approximately 68.2 percent, or 316,061, were fully licensed. Nationally, motor vehicle crashes are the leading cause of death for this age group.¹ To combat this problem, Indiana implemented the Graduated Driver's Licensing (GDL) Law (Senate Enrolled Act 16) on January 1, 1999. This law incorporated two major changes with the intent to reduce the involvement of young and inexperienced drivers in crashes. First, drivers under the age of 18 are not permitted to operate a motor vehicle during curfew hours.² Second, during the first 90 days of licensure, these drivers may not transport other passengers unless a 21-year-old or older licensed passenger is accompanying them in the front seat.

Overall, because of the relatively small numbers of fatal crashes involving this age group, the variations in actual involvement and fatalities, as shown in Table 1A, show substantial deviation from year to year. However, Table 1B shows averages for three time periods. For the seven-year period prior to passage of the law, as compared to the three years subsequent to the law's passage, there is no noticeable difference in the results. However, a comparison of the three years immediately prior to the law revealed that during the three years following passage of the law, minimal improvements in reducing the involvement of young drivers in fatal crashes were achieved.

Table 1A: Young Drivers Involved in Fatal Crashes, 1992–2001

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Died in Fatal Crashes	90	94	100	88	110	102	108	99	89	102
Involved in Fatal Crashes	194	185	222	180	232	210	212	208	199	209

Table 1B: Young Drivers Involved in Fatal Crashes, 1992–2001

	1992-1998 Average	1996-1998 Average	1999-2001 Average
Died in Fatal Crashes	99	107	97
Involved in Fatal Crashes	205	218	205

The GDL law has had a minimal impact on reducing the involvement of young drivers in fatal crashes.

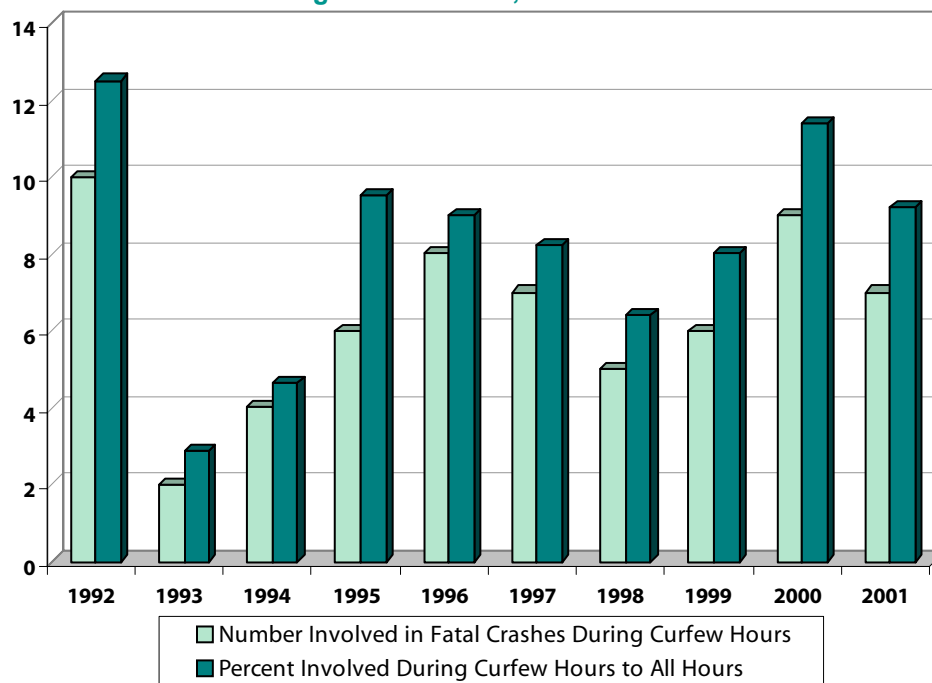
Despite passage of the GDL law, the number of drivers under the age of 18 involved in fatal crashes during the curfew hours has not decreased in the three years following the law's implementation. As shown in Figure 1, in 1999, 2000, and 2001 there were six, nine, and seven fatal crashes, respectively. During the ten years prior to 1999, the average number of 16- or 17-year-old drivers involved in fatal crashes during the curfew hour period was seven. While the number of licensed 16- and 17-year-old drivers peaked in 1996–1998, overall, the number of licensed drivers in this age group has remained relatively constant during this period. Also, in 1999, 2000, and 2001, there were six, three, and five fatal crashes, respectively, involving 16- and 17-year-old drivers who were in violation of the 90-day rule.

In Indiana in 2001, 16.4 percent (209) of all drivers involved in fatal crashes (1,272 total involved drivers) were young drivers 16 to 20 years old, a slight increase from the 15.5 percent (199 of 1,282) in 2000 (see Table 2). Nationally, 14.2 percent of drivers involved in fatal crashes in 2001 belonged to this age group.

¹ According to the Federal Highway Administration, motor vehicle crashes are the leading cause of death for people ages 6 to 33 in the United States. More information is available at http://safety.fhwa.gov/fourthlevel/brakes_facts.htm.

² This includes the hours of 11 PM–5 AM Sunday through Thursday, and 1 AM–5 AM on Friday and Saturday nights.

Figure 1: Sixteen- and Seventeen-Year-Old Drivers in Fatal Crashes During Curfew Hours, 1992-2001



Young drivers are twice as likely to be involved in a fatal crash as compared to all other age groups of drivers.

Motor vehicle crashes in 2001 killed 102 young Indiana drivers—a 14.6 percent increase over 2000, when 89 young drivers were killed. In 2001, of the 209 young drivers involved in fatal crashes, 48.8 percent died as a result of the crash. The number of young driver fatalities remained relatively constant over the past six years (three years prior to passage of the law, and three years subsequent to its passage—see Figure 2). However, young drivers are twice as likely to be involved in a fatal crash as compared to all other drivers. This age group of drivers represents 7.8 percent of the total licensed drivers, and yet are involved in 19.4 percent of the single vehicle crashes. As shown in Table 2, young drivers are highly over-represented in their involvement with fatal crashes.

Male driver fatalities in Indiana represented 73.1 percent of the young driver fatalities between 1992 and 2001. In 2001, the 73 killed male drivers and 29 killed female drivers were consistent with historical Indiana percentages. Nationally in 2001, males and females accounted for 72.3 percent and 27.7 percent, respectively, of driver fatalities in this age group.

NHTSA has estimated nationwide that in the year 2001, police-reported crashes involving young drivers totaled \$42.3 billion, representing a 29 percent increase over the year 2000 (\$32.8 billion). The economic cost for Indiana in 1999 (most recent data) was estimated at nearly half a billion dollars (\$483 million) for young driver-related crashes, approximately 17.7 percent of the total cost for the State (\$2.73 billion).³

Table 2: Fatal Crash Involvement by Age Group

	Age Group (Years)							
	16-20	21-24	25-34	35-44	45-54	55-64	65-69	70+
2001 Licensed Drivers	7.8%	6.8%	17.9%	21.8%	19.1%	12.4%	4.6%	9.6%
Percent of Drivers Involved in Fatal Crashes*								
Single Vehicle	19.4%	13.9%	17.9%	18.7%	12.0%	7.9%	2.2%	8.1%
Multi-Vehicle	15.0%	7.7%	18.1%	21.3%	14.9%	9.0%	3.3%	10.7%
All Fatal Crashes	16.4%	9.7%	18.1%	20.4%	13.9%	8.6%	2.9%	9.8%
Drivers Involved in Fatal Crashes per 1,000 Licensed Drivers	0.66	0.45	0.32	0.30	0.23	0.22	0.20	0.32

* Out of all drivers whose age was known to be 16 years old or older.

³ This was estimated by multiplying the percent of total drivers in crashes by the total economic loss from crashes. These figures are provided in the 1999 *Indiana Crash Facts*.

Figure 2: Driver Fatalities and Drivers Involved in Fatal Crashes Among Drivers 16–20 Years Old, 1992–2001

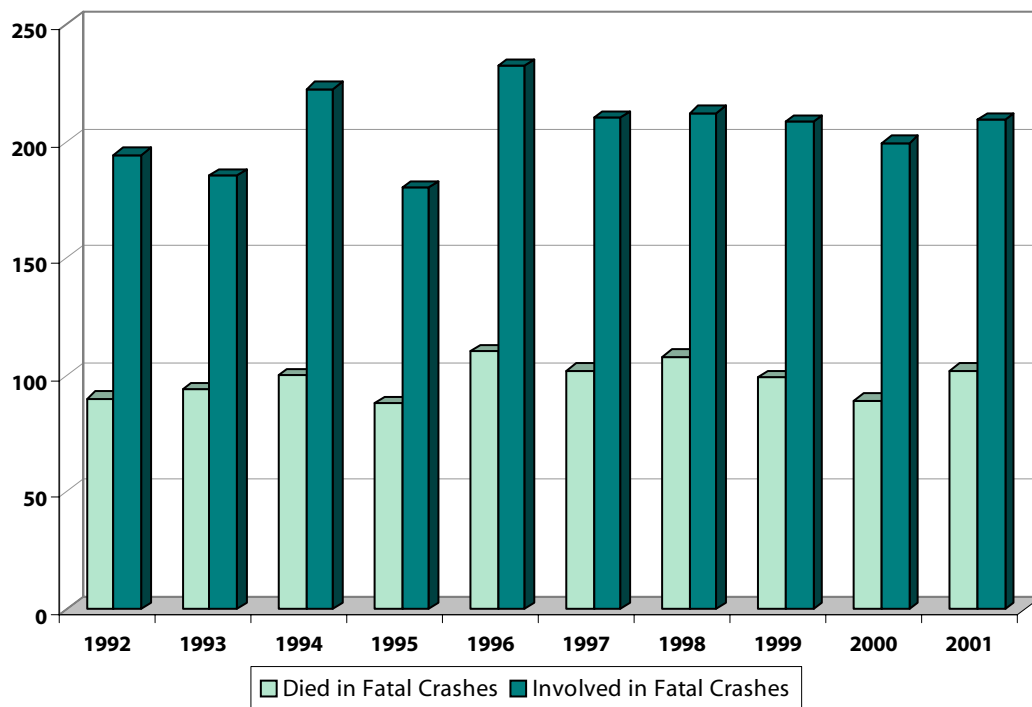


Table 3: Number of Fatalities Age 16–20 Years Old by Gender, 1992–2001

Gender	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Female	15	19	33	25	28	23	39	34	19	29
Male	75	75	67	63	82	79	69	65	70	73
Total Fatalities	90	94	100	88	110	102	108	99	89	102

Alcohol

Twelve percent (25) of the 16- to 20-year-old drivers involved in fatal crashes had a previous license suspension, and 46.9 percent (15 of 32 drivers) not holding valid licenses were involved in fatal crashes, and had a previous license suspension. Although 46 of the 102 killed young drivers had blood alcohol content results that were either unknown or unreported, 21.4 percent (12) of the reported known results (56) indicated the presence of alcohol (.01 g/dl or greater) prior to the fatal crash. Additionally, police reported other drug involvement in 7.8 percent (8) of young drivers who died in fatal crashes in Indiana in 2001. Further details on the role of alcohol involvement in these fatal crashes were not available at the time of publication.

Table 4: License Status—Convictions and Suspensions of Drivers 16–20 Years Old Involved in Fatal Crashes in 2001

Driving Record	License Status								
	Valid (177)			Invalid (32)			Total (209)		
	Number (from 177)	Indiana Percent	National Percent	Number (from 32)	Indiana Percent	National Percent	Number (from 209)	Indiana Percent	National Percent
Previous Recorded Crashes	2	1.1%	17.7%	6	18.8%	12.6%	8	3.8%	17.0%
Previous Recorded Suspensions or Revocations	10	5.6%	8.0%	15	46.9%	35.4%	25	12.0%	11.9%
Previous DWI Convictions	1	0.6%	1.4%	0	0.0%	6.4%	1	0.5%	2.1%
Previous Speeding Convictions	47	26.6%	24.9%	8	25.0%	16.4%	55	26.3%	23.7%
Previous Other Harmful or Moving Conviction	32	18.1%	19.7%	9	28.1%	19.3%	41	19.6%	19.6%

One of five young drivers involved in a fatal crash (with reported BAC results) had a BAC level of 0.01 g/dl or greater.

Four out of five young male drivers involved in a fatal crash were not properly restrained (where seatbelt use was known).

Occupant Protection - Seatbelts and Motorcycle Helmet Use

Although seatbelts do not guarantee that an occupant may walk away from a crash, their 45 percent effectiveness⁴ could have saved several young drivers' lives. While seatbelt usage rates continue to increase observationally, both nationwide and in Indiana, the usage rate as measured by fatalities restrained does not parallel the observational usage rate gains. Of the young drivers killed in 2001, only 28.4 percent (29 of 102) were properly restrained (where restraint use was known).

As is the case in other age groups, seatbelt usage among young male drivers is lower than that of comparable young female drivers. During 2001, one out of three young female drivers involved in an Indiana fatal crash was not properly restrained, while four out of five young male drivers involved in an Indiana fatal crash were not properly restrained (where restraint usage was known). None of the nine young drivers killed in 2001 that were driving either a pickup truck or van (full size) were properly restrained.

There were ten motorcycle operators between the ages of 16 and 20 involved in fatal crashes in Indiana during 2001, comprising 11.8 percent of the 85 operators of all ages involved in fatal crashes. Of these ten, only 40.0 percent had a valid motorcycle license in Indiana. Nationally, only 56.6 percent of motorcycle operators ages 16 to 20 involved in fatal crashes had a valid motorcycle license.

According to NHTSA, "helmets are estimated to be 29 percent effective in preventing fatalities among motorcyclists."⁵ In Indiana in 2001, only one of the ten driver fatalities was wearing a helmet at the time of the crash, and neither of the two motorcycle passenger fatalities were wearing helmets. Nationally, 50.2 percent of the motorcycle operators, and 28.0 percent of the motorcycle passengers were helmeted at the time of their crash in 2001.

Conclusion

The young driver age group continues to have the highest fatality rates per licensed driver in Indiana, and in the nation. Indiana data for the year 2001 shows only limited success as measured by the Graduated Driver's License Law's effectiveness (curfew restrictions and passenger restrictions). Indiana's Graduated Driver's License Law is one of the weakest in the nation—in part because it only imposes passenger restrictions for the first 90 days of licensure, versus other states where passenger restrictions are imposed through the first year of the young driver's license. Findings in other states (although not validated in Indiana) indicated that after any driving restrictions are removed (from the young driver), crash rates return to their historical higher rates. Male drivers are clearly at a higher risk for involvement in fatal crashes in passenger vehicles, as well as motorcycles, than their female counterparts. However, this higher involvement rate among young male drivers is consistent with all age groups of drivers. Overall, the young occupant age group also is less likely to be protected by use of seatbelts or helmets.

⁴ From Traffic Safety Facts 2001- Occupant Protection. Available online at <http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSF2001/2001occpro.pdf>.

⁵ Data taken from NHTSA Young Drivers Traffic Safety Facts 2001, available online at <http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSF2001/2001mcycle.pdf>.

This publication was prepared on behalf of the Indiana Criminal Justice Institute by Purdue University's Center for the Advancement of Transportation Safety. All information contained within was gathered from the Fatality Analysis Reporting System (FARS) Web-Based Encyclopedia provided by the National Highway Traffic Safety Administration (NHTSA) available at <http://www.fars.nhtsa.dot.gov>. All figures are considered current as of September of 2002. Please direct any questions concerning data in this document to the Center for the Advancement of Transportation Safety, Purdue University, Potter Engineering Center, Room 322, 500 Central Drive, West Lafayette, IN, 47907-2022.